

Appl. No. 09/551,151
Amdt. Dated February 4, 2004
Reply to Office action of November 4, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-39 (previously deleted).

Claim 40 (currently amended): A recombinant protein comprising a ricin A chain, a ricin B chain and a heterologous linker amino acid sequence, linking the A and B chains, wherein the linker sequence contains a cleavage recognition site for a ~~cancer~~ associated protease matrix metalloproteinase.

Claims 41-44 (previously deleted).

Claim 45 (currently deleted).

Claims 46-48 (previously deleted).

Claim 49 (previously amended): The recombinant protein of claim 40 having the linker amino acid sequence according to SEQ ID No. 43.

Claim 50 (deleted).

Claim 51 (currently amended): The recombinant protein of claim 40, wherein the ~~heterologous linker contains a cleavage recognition site for~~ matrix metalloproteinase is matrix metalloproteinase-9.

Claims 52-54 (deleted).

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Claim 55 (currently deleted).

Claim 56 (deleted).

Claim 57 (currently deleted).

Claim 58 (original): A pharmaceutical composition for treating cancer or a fungal, or viral, or parasitic infection in an animal comprising the recombinant protein of claim 40 and a pharmaceutically acceptable carrier, diluent or excipient.

Claim 59 (new): A recombinant protein comprising a truncated ricin A chain, a ricin B chain and a heterologous linker amino acid sequence linking the A and B chains wherein the linker sequence contains a cleavage site for a cancer-associated protease.

Claim 60 (new): A recombinant protein comprising a ricin A chain, a truncated ricin B chain and a heterologous linker amino acid sequence linking the A and B chains wherein the linker sequence contains a cleavage site for a cancer-associated protease.

Claim 61 (new): A recombinant protein comprising a truncated ricin A chain, a truncated ricin B chain and a heterologous linker amino acid sequence linking the A and B chains wherein the linker sequence contains a cleavage site for a cancer-associated protease.

Claim 62 (new): A recombinant protein according to any one of claims 59, 60 or 61 wherein the cancer-associated protease is a matrix metalloproteinase.

Claim 63 (new): A recombinant protein according to claim 62 having a linker amino acid sequence according to SEQ ID NO:43.

Claim 64 (new): A recombinant protein of according to claim 62 wherein the matrix metalloproteinase is matrix metalloproteinase-9.